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ABSTRACT

This document presents a step-by-step guide to using three desktop videoconferencing applications: CU-SeeMe, iVisit, and NetMeeting. First, hardware and software recommendations for PC-based and Macintosh systems are provided. Illustrations of sample screens accompany the text for each application. The following additional considerations for conducting videoconferences are discussed: light and sound; video (camera placement); connection considerations; and user familiarity. (AEF)

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A Guide to Desktop Videoconferencing

CU-SeeMe
iVisit
NetMeeting

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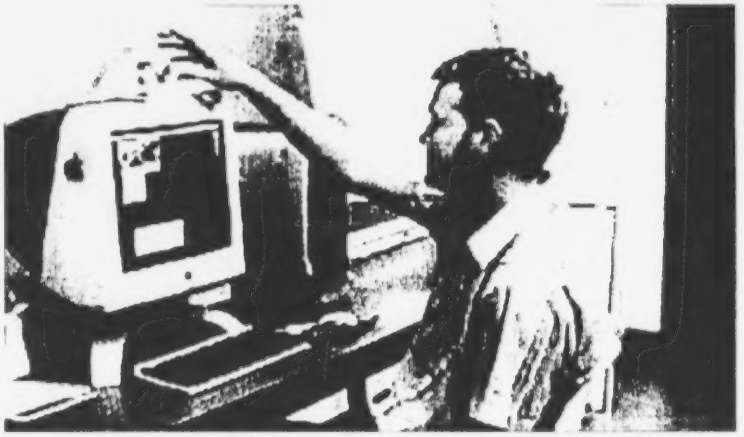
Hardware/Software Recommendations

PC-based System

Processor: Pentium 3, Celeron, Athelon or other at 450 Mhz or more
Operating System: Windows 98 or above
RAM: minimum of 128MB
Internet Connection: Lan/T1 or higher recommended
Software: Microsoft Netmeeting
Microphone: Most available microphones comparable
Camera: Most cameras comparable. Minimum of 30fps



Macintosh System

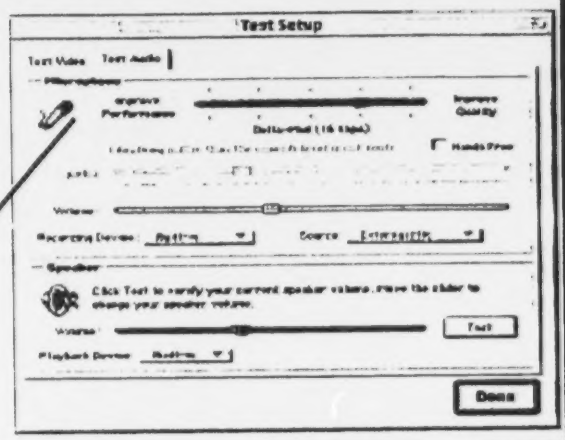
Processor: G-3 or greater
Operating System: Mac OS 8 or greater
RAM: minimum of 128MB
Internet Connection: Lan/T1 or higher recommended
Software: iVisit (freeware)
Microphone: Most available microphones comparable
Camera: Most cameras comparable. Minimum of 30fps

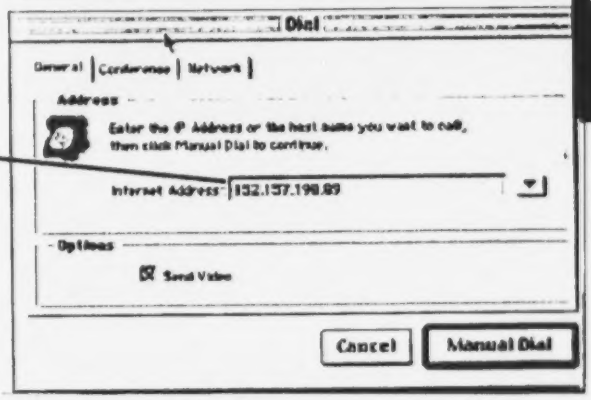
Note: Both sites attempting to connect must be using the same software. Ex. Netmeeting users cannot connect with iVisit users.

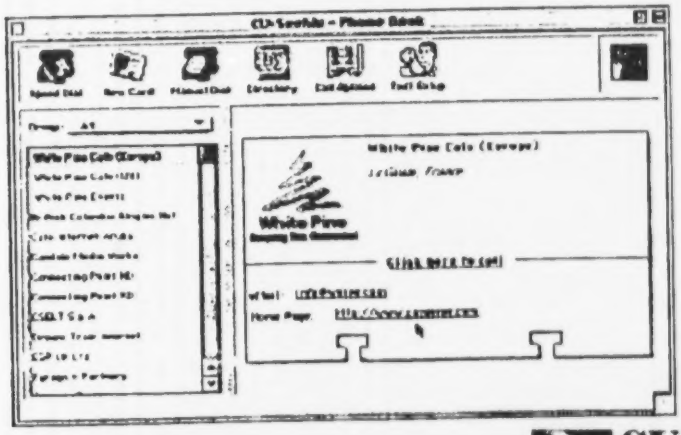
Step - by - Step

CU-SeeMe

1, Locate the CU-SeeMe program on your computer and open it. (If prompted, run through the setup menu. Follow directions in the menu to set up audio and video devices as well as your connection information.)
2. Once the program is open it is important to test your video and audio.There is a Test Setup button to do this. Make sure you can see yourself, and make any adjustments to improve your picture by using the configure buttons. Make sure audio works, both incoming and outgoing. Since equipment can vary, you may have to experiment with different options to see what looks and sounds best.
3. Choose "Call" from the menu bar or "Manual Dial" from the CU-SeeMe button bar in the window and click on the "General" tab.
4. Enter the IP number for the computer you are trying to contact and click "Manual Dial". (Note: the IP address that you enter must be static. If you have any questions about this see 'common problems' below.) Also be sure that the recieving computer is on and awaiting your call.
5. Once connected click the "Go" button.
6. It will take a few moments for the video to appear clearly. You need to click and hold on the microphone button on the panel to speak. Chat functions are available by typing into the input field and pressing return. Your posting will promptly appear in the window above after your screen name.
7. When you are done, click on "Hang up" and quit CUSeeMe.







Common problems and trouble-shooting hints:

1. You need to have an individually assigned IP to access across the Internet. If you are behind a firewall, you can "punch" holes into the firewall to allow conference calls. Ask your network administrator to open these ports. The ports must be opened to allow communication in both directions, both incoming & outgoing. These ports are –
   UDP 7648 TCP 7648
   UDP 7649 TCP 7649
   UDP 24032

One caution, CUSeeMe does not work through a proxy server and does not support NAT. This information is from the CUSeeMe for Mac support page, FAQs - http://support.cuseeme.com/cumac/faq/. If your network administrator has questions about this, direct them to the CUSeeMe support page.

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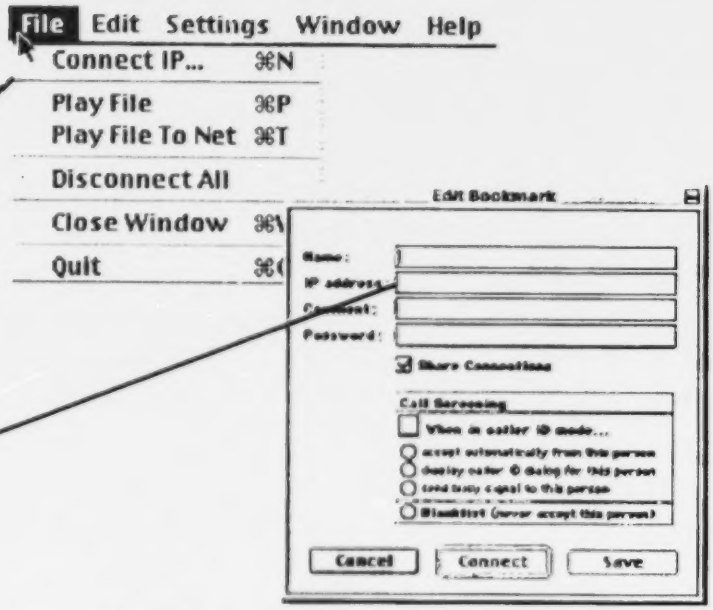
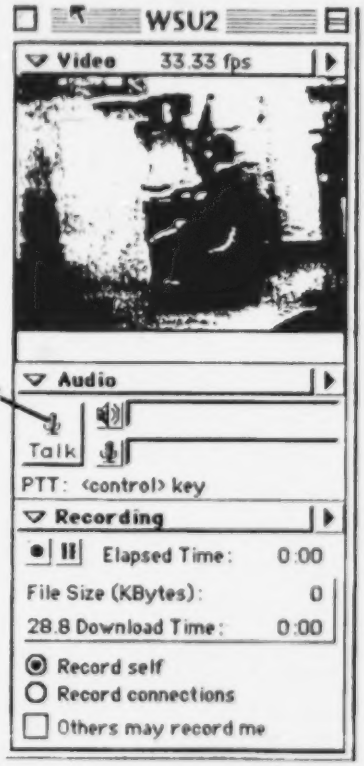
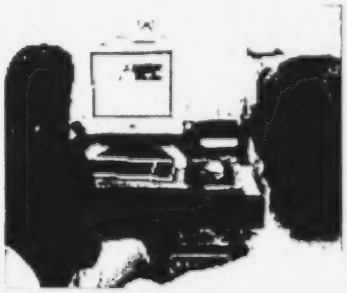
Step - by - Step

iVisit

1. Find the Ivisit program on your computer and open it.
2. Close the "Directory Service Message" window by clicking "OK".
3. Once the program is open, call the other person by clicking on the "File" pulldown menu and choosing "Connect IP..."
4. In the window that appears type the name of the person that you are calling and their IP address. Click "connect". (Note: this IP address must be static.)
5. A window will appear to show the progress of the call. When the person answers their video will appear in the window.
6. Click on "Window" on the top dropdown menu and choose "Local AV Window" to see your own video, or "Chat Window" to utilize the chat functions.
7. When in a call click the "Talk" button to send audio. (Click the smaller speaker and microphone buttons to the right to mute.)
8. To end the session quit the program through the "File" menu.







iVisit™

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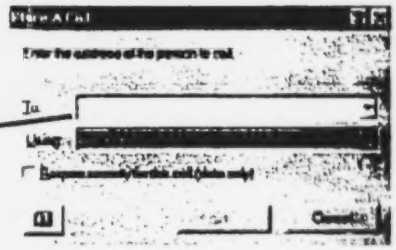
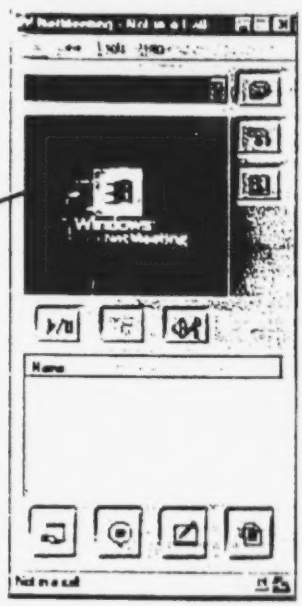
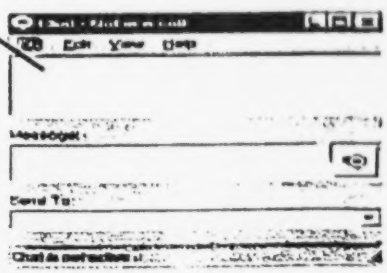
Step - by - Step

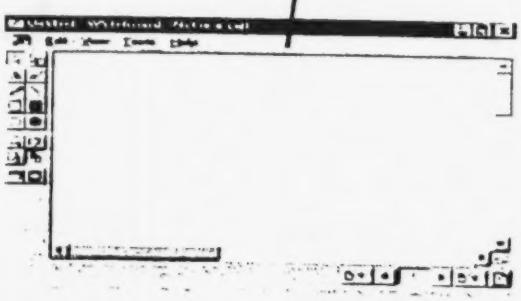
Netmeeting



1. Locate the NetMeeting program on your computer and open it.
2. Call the other person: Click on the first pulldown menu to find their IP address listed, and if it isn't there, type it in. Click the telephone button to the right to call them.
3. Wait for a response. The other user must approve the call on their end. When they approve, you are connected.
4. Turn your video transfer on: Pull down the Tools menu, click Video, then click Send so it is checked. Make sure receive is also checked.
5. If you don't see a video window, pull down the View menu and click Compact. You will see the other person if their video is being sent properly, otherwise you'll just see yourself until they turn theirs on.
6. Other functions such as chat or whiteboard are on the Tools pulldown menu. In chat, just type messages and click the send button, and in the whiteboard start drawing and the other user will see the same thing.







Windows NetMeeting

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Additional considerations

Lighting and sound

When conducting videoconferences lighting should be abundant (desktop cameras do not function well in low-light environments). Also, when using the typical computer microphones, the ideal broadcast room should be removed from general activity and relatively quiet for efficient audio transmittal.

Video (Camera placement)

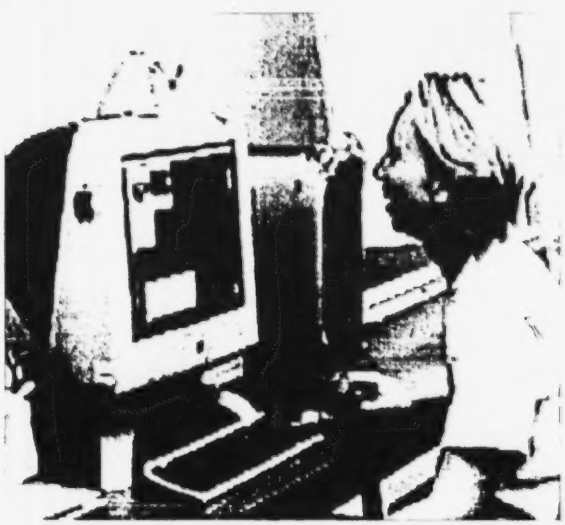
Due to the limitations inherent in the average desktop videoconferencing system, i.e. they work better at closer range, interactions involving more than three participants on either side should be avoided. Ideally a one-to-one arrangement is best where verbal discourse dominates as speaker interface is generally limited to a single user's mouse-clicks. Where more than three participants desire to connect special hookups may be needed including specialized microphones, and/or larger monitors.

Connection considerations

While desktop videoconferences can be conducted over dialup connections, it is recommended that LAN connections (at least T1) be utilized. Using a connection lower than this typically results in choppy video and poor audio lessening somewhat the satisfaction of participants.

User familiarity

In addition to having accessible tech support it is important that the users involved in the connection possess a basic understanding of the program interface. It may be helpful to conduct "dry runs" between local computers prior to the connection in order to foster familiarity with participants.



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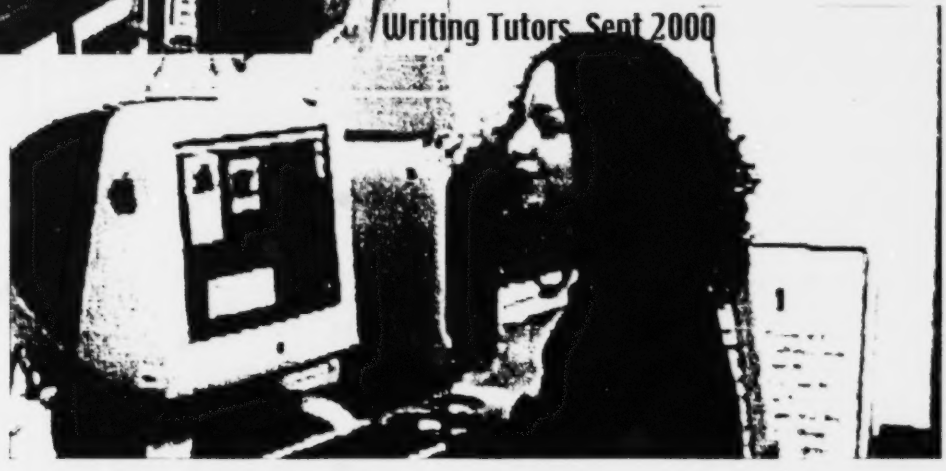

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